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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
HWANG, JOON H	

ART UNIT	PAPER NUMBER
2166	

DATE MAILED: 04/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/087,197	KUMAR ET AL.	
	Examiner	Art Unit	
	Joon H. Hwang	2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 January 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-9,11-15 and 17-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-9,11-15 and 17-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *8/8/05, 11/10/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The applicants amended claims 1, 3-9, 11-15, and 17-20 in the amendment received on 1/23/06.

The pending claims are 1, 3-9, 11-15, and 17-20.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 8-9, and 15 have been considered but are moot in view of the new ground(s) of rejection.

The applicants argue that Montero and Bauer fails to teach or suggest a first application server of the plurality of application servers, comprising a client state of the session data accessible to processes executing within the application server, *wherein the first application server is configured to track accesses of the individual attributes of the client state, wherein to track accesses of the individual attributes of the client state, the first application server is configured to store information identifying the accessed individual attributes*.

The examiner respectfully traverses. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by

combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Montero discloses synchronizing session data in a common session database with session data in an application server (section 26 on pages 2-3). Montero teaches the application server monitors and identifies any changes made to session data in the application server (section 49 on page 4 and section 53 on page 5), which teaches tracking access of the attributes of the client state. Bauer also discloses synchronization of a source database system and a target database system and tracking any changes in the source database system (i.e., an update log, line 61 in col. 3 thru line 27 in col. 4, lines 48-59 in col. 9, and lines 52-59 in col. 1). Montero does not explicitly disclose the first application server is configured to store information identifying the accessed attributes to track accesses of the attributes of the client state. However, Bauer teaches a server is configured to track accesses of data, wherein to track accesses of the data, the server is configured to store information identifying the accessed data (i.e., an update log, line 61 in col. 3 thru line 27 in col. 4, lines 48-59 in col. 9, and lines 52-59 in col. 1) in order to reduce communication costs and delays in data synchronization. Bauer also teaches tracking mutable data items and not tracking immutable data items (lines 53-60 in col. 3 and lines 28-52 in col. 28). Therefore, based on Montero in view of Bauer, it would have been obvious to one having ordinary skill in the art at the time the invention

was made to utilize the teaching of Bauer to the system of Montero in order to reduce communication costs and delays in data synchronization.

"Reason, suggestion, or **motivation to combine two or more prior art references** in single invention **may come from references themselves**, from **knowledge of those skilled in art** that certain references or disclosures in references are known to be of interest in particular field, or from **nature of problem to be solved**;" Pro-Mold and Tool Co. v. Great Lakes Plastics Inc. U.S. Court of Appeals Federal Circuit 37 USPQ2d 1626 Decided February 7, 1996 Nos. 95-1171, -1181

"Test of obviousness is not whether features of secondary reference may be bodily incorporated into primary reference's structure, nor whether claimed invention is expressly suggested in any one or all of references; rather, **test is what combined teachings of references would have suggested to those of ordinary skill in art**." In re Keller, Terry, and Davies, 208 USPQ 871 (CCPA 1981).

Therefore, the applicants' arguments are not persuasive.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1, 3-9, 11-15, and 17-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to

reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1, 3-9, 11-15, and 17-20 recite the limitation of "***individual***" attributes which is not supported by the specification.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1, 3-5, 8-9, 11-12, 15, and 17-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Montero et al. (U.S. Publication No. 2002/0143958 A1) in view of Bauer et al. (U.S. Patent No. 5,870,759).

With respect to claim 1, Montero teaches a distributed store comprising a primary state of session data configured for access by a plurality of application servers, wherein the session data comprises a plurality attributes (i.e., a common session database, fig. 1, sections 18-19 on page 2, section 26 on pages 2 and 3, and section 35 on page 3). Montero teaches a first application server of the plurality of application servers, comprising a client state of the session data accessible to processes executing within the application server, wherein the first application server is configured to track accesses of the attributes of the client state (fig. 1, abstract, section 11 on page 1, sections 14 and 20 on page 2, sections 35-36 on page 3, and sections 42 and 46 on

page 4). Montero teaches the distributed store configured to synchronize the primary state with the client state according to the tracked accessed attributes (section 26 on pages 2-3). Montero does not explicitly disclose the first application server is configured to store information identifying the accessed attributes to track accesses of the attributes of the client state. However, Bauer teaches a server is configured to track accesses of data, wherein to track accesses of the data, the server is configured to store information identifying the accessed data (i.e., an update log, line 61 in col. 3 thru line 27 in col. 4, lines 48-59 in col. 9, and lines 52-59 in col. 1) in order to reduce communication costs and delays in data synchronization. Therefore, based on Montero in view of Bauer, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Bauer to the system of Montero in order to reduce communication costs and delays in data synchronization.

With respect to claim 3, Montero does not explicitly disclose tracking mutable attributes and not tracking immutable attributes. However, Bauer teaches tracking mutable data items and not tracking immutable data items (lines 53-60 in col. 3 and lines 28-52 in col. 28). Therefore, the limitations of claim 3 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

The limitations of claim 4 are rejected in the analysis of claim 3 above, and the claim is rejected on that basis.

With respect to claim 5, Montero teaches the distributed store is configured to update the primary state with the subset of the accessed attributes that have been modified for synchronizing the primary state with the client state (section 26 on pages 2-

3). Montero does not explicitly disclose performing a comparison of the tracked accessed attributes and a benchmark of the session data comprising a previous version of the one or more attributes. However, Bauer teaches performing a comparison of the tracked accessed attributes and a benchmark (i.e., a before-image data) comprising a previous version of the one or more attributes to determine a subset of the tracked accessed attributes that are modified in respect to the benchmark (i.e., the before-image data, line 50 in col. 1 thru line 2 in col. 3, lines 34-52 in col. 3, lines 27-67 in col. 9, and lines 1-11 in col. 10). Therefore, the limitations of claim 5 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

The limitations of claims 8-9, 11, 15, and 17 are rejected in the analysis of claim 1 above, and these claims are rejected on that basis.

The limitations of claims 12 and 18 are rejected in the analysis of claim 5 above, and these claims are rejected on that basis.

7. Claims 6, 13, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montero et al. (U.S. Publication No. 2002/0143958 A1) in view of Bauer et al. (U.S. Patent No. 5,870,759), and further in view of Morris (U.S. Patent No. 5,813,017).

With respect to claim 6, Montero and Bauer disclose the claimed subject matter as discussed above. Bauer further discloses many other comparison methods for determining modifications since a last synchronization (lines 47-59 in col. 9). Montero and Bauer do not explicitly disclose a binary comparison. However, Morris discloses a binary comparison for determining differences for database synchronization (abstract

and line 47 in col. 11 thru line 13 in col. 12). Therefore, based on Montero in view of Bauer, and further in view of Morris, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teachings of Morris to the system of Montero in order to determine differences of two versions of data, thereby performing an effective database synchronization.

The limitations of claims 13 and 19 are rejected in the analysis of claim 6 above, and these claims are rejected on that basis.

8. Claims 7, 14, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montero et al. (U.S. Publication No. 2002/0143958 A1) in view of Bauer et al. (U.S. Patent No. 5,870,759), and further in view of Lin et al. (U.S. Patent No. 6,546,135).

With respect to claim 7, Montero and Bauer disclose the claimed subject matter as discussed above. Bauer further discloses many other comparison methods for determining modifications since a last synchronization (lines 42-53 in col. 9). Montero and Bauer do not explicitly disclose an object graph comparison. However, Lin discloses comparing data differences using DAG (directed acyclic graph) representation, which teaches an object graph comparison (abstract, line 40 in col. 7 thru line 14 in col. 8, and fig. 5). Therefore, based on Montero in view of Bauer, and further in view of Lin, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teachings of Lin to the system of Montero in order to determine differences of two versions of data, thereby performing an effective database synchronization.

The limitations of claims 14 and 20 are rejected in the analysis of claim 7 above, and these claims are rejected on that basis.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joon H. Hwang whose telephone number is 571-272-4036. The examiner can normally be reached on 9:30-6:00(M~F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joon Hwang
Patent Examiner
Technology Center 2100

4/14/06

JEAN M. CORRIELUS
PRIMARY EXAMINER